Image copy: A humans-machine bioelectronic crossover

What Is Individual Artificial Intelligence and How Will It Impact the Mortgage Industry?

The mortgage industry is rapidly progressing towards widespread artificial intelligence (AI) adoption, from the underwriting stage to document reviews as well as title and servicing sectors. As we have previously mentioned, nearly half (over 42%) of lenders use AI to improve operational efficiency. NVIDIA's recent survey of AI in financial services found that over 75% of firms leverage AI, high-performance computing, machine learning, and deep learning in at least one use case.

So, the question arises, where is the industry headed next? As computing resources become more affordable and accessible to all, there is an opportunity for mortgage providers to develop game-changing AI tech that carves out a clear, competitive advantage. Alongside hyper-automation (which is already well underway) and generative AI (currently in research & development), the next revolutionary concept for AI in mortgage will be individual artificial intelligence.

What is Individual Artificial Intelligence?

Individua artificial intelligence can be defined as AI systems that combine machine algorithms with human brain synapses to enable a sort of bioelectronic hybrid or crossover through existing and emerging brain-computer interface (BCI) technology. It will enable decisions and actions that humans and machines carry out together.

As this definition of individual AI suggests, the technology is not very easy to develop. Traditional artificial intelligence works in a centralized manner, where there are fixed rules and algorithms, based on which the AI will learn, analyze, and act. In contrast, individual AI would follow the pathway of human thoughts, including its reflexes and intellectual impulses. It is a dramatic shift, one that could completely transform how tasks are completed in every sector – including mortgage.

Individual artificial intelligence relies on a symbiotic relationship between the human brain and computing systems, either through surgical implants or BCI wearables. Meta's (i.e., Facebook's) mind-reading wristbands are a primitive example of the latter. It uses electromyography (EMG) rather than the brain-computer interface to read the impulses as they are conveyed from the user's brain to their muscles. By reading the signals, the user is able to perform a simple action – like "switch off the lights" – simply by thinking about it.

A more advanced example of individual artificial intelligence is Elon Musk's Neuralink. It is a neural technology company working on BCI that coud one day enable humans and machines to work together. Similarly, neurotech startup Synchron has developed a BCI solution that allowed a person suffering from paralysis to convert his thoughts into Tweets. Upon reaching full maturity, individual AI can significantly augment the capabilities of human employees and also improve accessibility for borrowers around the globe.

How will Individual Artificial Intelligence Impact the Mortgage Industry?

While traditional AI is mostly used for automation and data-related tasks, individual AI will play a very different role in mortgage. Its biggest influence will probably be felt in customer services, as AI allows servicing agents to work more efficiently, look up data faster, and overcome human fatigue to deliver superior borrower experiences. The technology can also prove useful in the underwriting stage when coupled with additional technologies like the Internet of Things and augmented reality. For example, an underwriter could simply think about a risk parameter and the individual AI will visualize it in augmented reality immediately using IoT data.

Of course, the importance of individual artificial intelligence for accessibility cannot be overstated. As mortgage faces a rapidly aging workforce, the technology would support employees' cognitive capabilities and allow them to stay gainfully employed for longer. This would help lenders optimize their workforce costs and continue to gain from years of industry knowledge.

Individual artificial intelligence would also help borrowers with accessibility issues to find better mortgage solutions. The AI can accurately depict user thoughts, requirements, desires, and difficulties to understand the borrower profile. Lenders could eventually be able to leverage this data (with the proper privacy checks and balances) when calculating risks and possibilities of defaulting. Ultimately, one can imagine a scenario where human cognitive judgment applies to high-volume data processing by AI to enable mortgage decisions that are near perfect.

How to Prepare for Individual AI in Mortgage?

It should be noted that a few fundamental obstacles still exist to realizing the potential of individual artificial intelligence. The first challenge is how to convert a biological electric signal into a machine-readable, digital signal. Second, BCI continues to be an invasive technology, which limits its reach and applications. In the next few years, as individual AI gradually enters the research stage, mortgage providers must be prepared to explore the most compelling use cases.

To achieve this, lenders need to have a robust digital bedrock that generates sufficient volumes of digital information to be of use to AI. Data warehousing, structured and unstructured data reconciliation, and digital literacy are some of the foundational capabilities necessary. Given the current state of AI in mortgage, it could take nearly a decade for individual AI to go from isolated experimentation to business readiness. Fortunately, this gives you just enough time to build out the digital ecosystem that is essential for these futuristic AI engines to flourish.

At <Company name>, our 1000+ SMEs bring more than two decades of experience in the mortgage industry, combined with cutting-edge technology expertise across cloud, AI, automation, and other areas. This makes us uniquely positioned to build custom AI solutions informed by the latest research, development, and insights.

Are you eager to know what individual artificial intelligence means for your mortgage business? Speak with us to know more.